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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,215	12/11/2000	David Michael Kurn	20206-038 (P00-3420)	4261

7590 06/22/2004

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EXAMINER

CHAI, LONGBIT

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 06/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/735,215

Applicant(s)

KURN, DAVID MICHAEL

Examiner

Longbit Chai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte* Quayle, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. No claim for priority has been made in this application.
2. The effective filing date for the subject matter defined in the pending claims in this application is 12/11/2000.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hardjono (Patent Number: US 6182214 B1), hereinafter referred to as Hardjono, in view of Bellare (Proposal for P1363 Study Group on Password-Based Authenticated-Key-Exchange Methods), hereinafter referred to as Bellare.

4. As per claims 1 and 5, Hardjono teaches a cryptographic system in a computer system, comprising:

- a. at least one server (Hardjono: see for example, Figure 1); and

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b. at least one secret value including a master key, the master key being split into two or more parts wherein fewer than all the parts are required for reassembling the master key (Hardjono: see for example, Column 2 Line 11 – 20),

5. Hardjono teaches the parts are further encrypted (Hardjono: see for example, Column 6 Line 15 – 16).

6. Hardjono does not expressly teach the parts being encrypted by a password-derived or token-based key.

7. Bellare teaches the parts being encrypted by a password-derived key (Bellare: see for example, section of problem description).

8. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Bellare within the system of Hardjono because (a) many common cryptographic methods for authentication require large, random high-grade secret keys, yet, the secrets that human beings can conveniently memorize and reliably reproduce tend to be low-grade secrets, and (b) Bellare discloses password-based authentication technique that offers very strong guarantees using a very simple trust model based on a weak authenticator and this trust model is in fact the predominant trust model used in person-to-computer authentication.

9. Hardjono as modified further teaches:

c. the parts being encrypted by a password-derived or token-based key, each part being associated with a password wherein the at least one server can update the master key by requiring only some of the passwords to be revealed (Hardjono: see for example, Column 6 Line 14 and Column 6 Line 19 – 20).

10. As per claims 2 and 6, Hardjono as modified teaches the claimed invention as described above (see claim 1). Hardjono as modified further teaches the master key is used for protecting sensitive information processed by the at least one server (Hardjono: see for example, Column 1 Line 28 – 30).

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hardjono (Patent Number: US 6182214 B1), hereinafter referred to as Hardjono, in view of Newton (Patent Number: 5771291), hereinafter referred to as Newton.

12. As per claim 3, Hardjono as modified teaches the claimed invention as described above (see claim 1). Hardjono as modified does not teach the sensitive information is stored in the database.

13. Newton teaches the sensitive information is stored in the database (Newton: see for example, Column 6 Line 26 – 31).

14. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Newton within the system of Hardjono because Newton discloses an effective security system using database of storing and accessing sensitive information (Newton: see for example, Column 1 Line 67 and Column 6 Line 26 – 31).

15. Claims 4 and 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hardjono (Patent Number: US 6182214 B1), hereinafter referred to as Hardjono, in view of Denning (Descriptions of Key Escrow Systems), hereinafter referred to as Denning.

16. As per claims 4 and 7, Hardjono as modified teaches the claimed invention as described above (see claim 1). Hardjono as modified does not teach the master key is split into the two or more parts according to the Bloom-Shamir methodology.

17. Denning teaches the master key is split into the two or more parts according to the Bloom-Shamir methodology (Denning: see for example, section of RSA Secure and subsection of Key Escrow Component).

18. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Denning within the system of Hardjono because Denning discloses the master key is generated and stored in escrow and is split with a "k out of n" threshold scheme using Bloom-Shamir secret sharing techniques (Denning: see for example, section of RSA Secure and subsection of Key Escrow Component).

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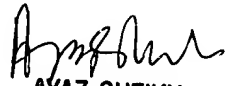
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Longbit Chai whose telephone number is 703-305-0710. The examiner can normally be reached on Monday-Friday 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R Sheikh can be reached on 703-305-9648. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Longbit Chai
Examiner
Art Unit 2131

LBC


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